

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Invertebrate Abstract**

**Element Code:** IILEPA5060

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Euchloe guaymasensis* Opler

**COMMON NAME:** Sonoran Marble, Sonoran White

**SYNONYMS:**

**FAMILY:** Pieridae

**AUTHOR, PLACE OF PUBLICATION:** P. Opler, Journal of Lepidopterists' Society 40 (3): 188-190. 1987.

**TYPE LOCALITY:** Mexico, Estado de Sonora, Las Avispas microwave relay, 2000 ft, 40 miles north Guaymas.

**TYPE SPECIMEN:** HT: USNM-13737, male. RWH.

**TAXONOMIC UNIQUENESS:** More than 1,000 species in 75 genera have been described.

**DESCRIPTION:** The wingspan is 1.25-1.5 inches (3.1-3.7 cm). The upper surface is pale yellow with a black bar in discal cell and black on forewing apex. The underside has sparse green marbling. The areas between the marbling are not highly reflective. The pigmentation of the wing scales comes from by-products of food eaten by caterpillars.

For the family Pieridae, also known as the whites and sulphurs, there are several characteristics unique to them. These are the presence of pterin pigments in the wing scales, the foretarsi with the inner claw being subequal in length to the outer, whereas the inner is much shorter in other butterflies, they have full-sized legs that are used for walking, and other wing venation and thoracic skeletal features. Most pierids display sexual dimorphism in color patterns, sometimes to the extreme, and many have marked seasonal variation. The larvae are slender caterpillars, relatively uniform in structure, without protuberances, and covered with short secondary setae, and each segment is divided superficially into 6 annulets. They are mainly green, including the head, or spotted with yellow and blue in species that feed on flowers. Some species possess an anal comb.

**AIDS TO IDENTIFICATION:**

**ILLUSTRATIONS:** Color photo (Kondla, in

[http://nitro.biosci.arizona.edu/zeeb/butterflies/figs/Butterflies/Pieridae/Anthocharinae/E\\_guaymasensis.jpg](http://nitro.biosci.arizona.edu/zeeb/butterflies/figs/Butterflies/Pieridae/Anthocharinae/E_guaymasensis.jpg))

Color photo (Brodikin in  
<http://www.neotropicalbutterflies.com/Pierids/Sonoran%20Marble.htm>)

**TOTAL RANGE:** Mostly in Sonora, Mexico, but reported once from southeastern Arizona (Cochise County).

**RANGE WITHIN ARIZONA:** Cochise County.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Unknown

**REPRODUCTION:** They have one flight from February through March. For the family the courtship behaviors range from simple to extremely complex.

**FOOD HABITS:** Host plant is *Descurainia pinnata* (Tansy mustard).

**HABITAT:** Rocky desert hills and ridges in thorn scrub and oak-juniper zones.

**ELEVATION:** 2,000 ft (610 m)

**PLANT COMMUNITY:** Unknown

**POPULATION TRENDS:** Unknown

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None

**STATE STATUS:** None

**OTHER STATUS:** None

**MANAGEMENT FACTORS:**

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:** Life history, population status, and population range studies need to be performed.

**LAND MANAGEMENT/OWNERSHIP:**

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

- Brodkin, P. 2003. In <http://www.neotropicalbutterflies.com/Pierids/Sonoran%20Marble.htm>.  
[Http://en.wikipedia.org/wiki/Sonoran\\_Marble](http://en.wikipedia.org/wiki/Sonoran_Marble).  
[Http://www.funet.fi/pub/sci/bio/life/insecta/lepidoptera/ditrysia/papilionoidea/pieridae/pierinae/euchloe](http://www.funet.fi/pub/sci/bio/life/insecta/lepidoptera/ditrysia/papilionoidea/pieridae/pierinae/euchloe).  
[Http://www.lepidopterology.com/almanac/t\\_guaymasensis\\_e.htm](http://www.lepidopterology.com/almanac/t_guaymasensis_e.htm).
- Kondla, N. In [http://nitro.biosci.arizona.edu/zeeb/butterflies/figs/Butterflies/Pieridae/Anthocharinae/E\\_guaymasensis.jpg](http://nitro.biosci.arizona.edu/zeeb/butterflies/figs/Butterflies/Pieridae/Anthocharinae/E_guaymasensis.jpg).
- McGavin, G.C. 2002. Smithsonian Handbooks Insects Spiders and Other Terrestrial Arthropods. DK. New York, New York. Pp: 177.
- Milne, L. & M. Milne. 1980. National Audubon Society Field Guide to North American Insects and Spiders. Alfred. A. Knopf. New York, New York. Pp: 724-725.
- Nearctica. Available: <http://www.nearctica.com/butter/plate3/Eguayma.htm>.
- Preston-Mafham, R. & K. Preston-Mafham. 1993. The Encyclopedia of Land Invertebrate Behaviour. The MIT Press. Cambridge, Massachusetts. Pp: 109-110.
- Resh, V.H & R.T. Carde. 2003. Encyclopedia of Insects. Academic Press. San Diego, California. Pp: 662.
- Tilden, J.W. & A.C. Smith. 1986. A Field Guide to Western Butterflies. Houghton Mifflin Company. Boston, Massachusetts. Pp: 214, 147.
- USGS. <http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/usa/890.htm>.
- USGS. <http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/mx/890.htm>.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

**Revised:** 2005-11-04 (AMS)

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